1   COMPILATION AND RUNTIME INFORMATION GENERATION AND OPTIMIZATION
2   Abstract

3   To collect frequencies with which processes of a program are
4   executed at high speed. A compiler apparatus for optimizing a
5   program based on frequencies with which each process is
6   executed has a loop process detection portion for detecting a
7   repeatedly executed loop process of the program, a loop process
8   frequency collection portion for collecting loop process
9   frequencies with which the loop process is executed in the
10   program, an in-loop process frequency collection portion for
11   collecting in-loop process frequencies with which, as against
12   times of execution of loop process, each of a plurality of
13   in-loop processes included in the loop process is executed, an
14   in-loop execution information generating portion for generating
15   in-loop execution information indicating the frequencies with
16   which each of the plurality of in-loop processes is executed in
17   the case where the program is executed, and an optimization
18   portion for optimizing the program based on the in-loop
19   execution information.

20   Selected Drawing Figure 1